

**SAMPLE-AND-HOLD PHASE SHIFTER CONTROL VOLTAGE
DISTRIBUTION IN A PHASED ARRAY UTILIZING VOLTAGE-
PROPORTIONAL PHASE SHIFT DEVICES**

ABSTRACT

A phase shift control voltage distribution scheme for a phased array utilizing voltage-proportional phase shift devices employs a digital-to-analog converter that supplies respectively different analog voltages to a sample-and-hold switch network coupled to analog voltage control inputs of the plurality of voltage-proportional phase shift devices. In order to impart a phase shift control voltage to one or more phase shift elements of the array, a control unit supplies a prescribed combination of a digital control code to the digital-to-analog converter and a switch control code to sample-and-hold switches of the switch network.